pneumococcal vaccination coverage and factors associated with receiving pneumococcal vaccination in U.S. adults with high-risk conditions encompassed by the ACIP recommendation. **METHODS:** This retrospective observational cohort study included commercially-insured adults aged 19-64 years with newly-diagnosed chronic medical conditions from 2007-2010. Outcomes of interest include pneumococcal vaccination coverage and time from initial diagnosis to pneumococcal vaccination. **RESULTS:** Among 300,556 U.S. adults with high-risk conditions, 30% had their condition diagnosed by primary care physicians. On average, these adults visited pharmacy, doctor's office, outpatient hospital, inpatient hospital and emergency department 38.3, 27.3, 6.6, 0.4, and 1.4 times, respectively, during an average 2.6 years of follow-up. Nevertheless, overall pneumococcal vaccination coverage was only 6.9%. Coverage was highest in patients with HIV (32.1%), followed by diabetes (11.2%), chronic lung disease (8.5%), asplenia (6.8%), chronic renal disease (5.9%), chronic heart disease (5.7%), cochlear implant (4.4%), cancer (4.2%), chronic liver disease (3.7%), alcoholism (2.5%), and transplant (2.0%). Among those who received pneumococcal vaccination, the majority was vaccinated in the physician's office (99%); average time from initial diagnosis to vaccination was 469 days, ranging from 198 days for HIV to 576 days for chronic liver disease. Multivariable logistic regression showed that adults who were older, initially diagnosed by primary care physicians, received influenza vaccination, had more conditions or more healthcare encounters were more likely to receive pneumococcal vaccination. **CONCLUSIONS:** Pneumococcal vaccination coverage in adults with high-risk conditions was far below the Healthy People 2020 objective. Findings suggest missed opportunities continue and better interventions needed to improve pneumococcal vaccination during healthcare encounters for this vulnerable population.

PIN106

## DRIVERS AND BEHAVIORS OF ADULTS WHO RECEIVED VACCINATION AT DIFFERENT SETTINGS

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**OBJECTIVES:** Adults are increasingly receiving vaccinations outside of traditional doctor's office setting. This study aimed to examine, from the patient's perspective, drivers and behaviors of adult vaccinations across various settings. **METHODS:** A cross-sectional, self-administered, online survey was conducted in U.S. nationally representative adults aged at least 19 years who received either influenza, pneumococcal, or zoster vaccine within the past 6 months. The survey explored attitudes, preferences, and behaviors of adults vaccinated at various settings. Descriptive and bivariate analyses were applied to analyze patients' responses by each vaccine and setting. **RESULTS:** Among 1,178 qualified respondents, 46.0% were vaccinated at doctor's office, 37.1% at pharmacy, and the remaining at other clinical or community settings. Other than doctor's office or pharmacy, the most common alternative setting to receive vaccination was workplace for influenza vaccine (15.5%), and hospital/emergency room for pneumococcal (9.3%) and zoster (5.5%) vaccines. Adults were more likely to know about the vaccines offered at the doctor's office directly from physicians (68.6%), while the majority of adults knew about vaccines offered at the pharmacy from seeing signs in the pharmacy (37.8%). Consistent across all three vaccines, the main drivers for selecting vaccination settings were "This location accepts my insurance", followed by "This is a location I already visit for other reason" and "I was able to vaccinate without an appointment". The primary reason for choosing to vaccinate at the doctor's office was "This is a location I already visit for other reasons", for pharmacy was "The location accepts my insurance", and for other settings was "Lower out-of-pocket cost". Among all respondents, 17.7% received two or more vaccines concurrently, with convenience and healthcare provider recommendation reported as the main drivers. **CONCLUSIONS:** Findings suggest opportunities to improve adult vaccination at traditional and non-traditional settings, and highlight importance of healthcare provider recommendation in adult vaccination.

PIN107

## PAST TRENDS AND CURRENT CHALLENGES IN THE HEPATITIS C REIMBURSEMENT LANDSCAPE: IS HISTORY REPEATING ITSELF?

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**OBJECTIVES:** In 2011, the introduction of boceprevir and telaprevir was hailed as a breakthrough in the hepatitis C (HCV) treatment paradigm, but these treatments were not widely adopted due to cost and safety concerns. 4 years on, the introduction of newer, more effective therapies (e.g. simeprevir and sofosbuvir) has re-revolutionized the HCV space. However, cost concerns continue to limit the number of patients being treated with new medicines. To inform future submissions, HCV reimbursement decisions across 5 HTA agencies were assessed and the underlying rationale examined. **METHODS:** NICE, SMC, PBAC, CADTH, and TLV were searched for guidance on HCV medicines between December 2010 and December 2014. Recommendations for and rationale behind each decision were extracted. **RESULTS:** Boceprevir and telaprevir had each been assessed 6 times across the different agencies including resubmissions: PBAC initially rejected both, then restricted both dependent on reduced price at resubmission; CADTH also restricted both dependent on reduced price. Submissions were accepted in-line with the label by the other agencies. Reasons for rejection/restriction of boceprevir and telaprevir included cost-effectiveness concerns, uncertain efficacy in some patient populations, and safety concerns. Simeprevir had been assessed 4 times with 1 in development: CADTH and TLV restricted simeprevir due to uncertainty over cost-effectiveness and efficacy in some genotypes; PBAC and SMC accepted simeprevir. Sofosbuvir had been assessed 4 times with 1 in development: PBAC rejected sofosbuvir due to unacceptable cost-effectiveness and high budget impact; CADTH and TLV restricted sofosbuvir dependent on reduced price; SMC accepted sofosbuvir. **CONCLUSIONS:** Despite higher cure rates achieved with newer treatment options, cost-effectiveness concerns remain the primary reason for rejection or restriction of HCV therapies by HTA agencies. Manufacturers should not assume that high clinical efficacy will equate to reimbursement and treatment uptake, as therapies must also convincingly demonstrate cost-effectiveness as well as justifying budget impact.

PIN108

## ASSESSING KNOWLEDGE AND ATTITUDE ABOUT EBOLA IN THE US: A CROSS SECTIONAL SURVEY

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**OBJECTIVES:** The world's worst outbreak of Ebola occurred in 2014 with 21,296 cases and 8,429 deaths reported in total. The first case of Ebola was recorded on 30th September by Centers for Disease Control and Prevention (CDC) in the US. Pharmacists can play an important role in treating Ebola patients. The aim of this study is to assess knowledge and attitude about Ebola among U.S. pharmacy students. **METHODS:** This was a cross sectional survey study. An Ebola questionnaire was distributed among third year pharmacy students in a private university in the U.S. before and after delivering an educational Ebola seminar based on the CDC and World Health Organization Ebola fact sheet N103. The questionnaire comprised of 33 questions was divided into three components: demographics (3), Ebola knowledge (25) and attitude about Ebola (5). Paired t test and McNemar test were employed using SPSS version 21. **RESULTS:** A total of 103 pharmacy students participated in the survey. The study population had a highly significant increase in Ebola related knowledge about species ($p<0.001$), incubation period ($p<0.001$), diagnosis ($p<0.001$), vaccination ($p<0.05$), treatment ($p<0.001$), complications ($p<0.001$) and immunity ($p<0.01$). Also, a significant number of study participants had a positive attitude about treating Ebola patients and believed that Ebola patients should be kept isolated ($p<0.05$) and communities should actively participate in preventing the spread of Ebola ($p<0.05$). **CONCLUSIONS:** Students, upon becoming PharmD professionals can apply the knowledge acquired through this study for effectively treating patients. Focused seminars are a valuable tool to improve student awareness of infectious disease.

PIN109

## PROJECT SKANT - STUDY OF ANTIBIOTIC PRESCRIPTION IN COMMUNITY IN SLOVAKIA

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**OBJECTIVES:** Antibiotics in clinical practice in Slovakia are often indicated unnecessarily and without proper differential diagnosis that differentiate viral form bacterial etiologic agents. Due to the frequent indications of antibiotics in praxis are consumption trends increasing, there is greater financial burden an the health care as well as we can observe unjustified consumption. In consequence the resistance of microorganisms to antibiotics is increasing. **METHODS:** Our work aims to give an image of the current prescribing behaviour of physicians involved in the project SKANT – The School of Antibiotic Therapy. It evaluates trends in antibiotic prescription in the treatment of respiratory diseases, the etiology of infections, antibiotic administration merits focused on Slovakia during first quarter of 2013. Implementation by validate questionnaire study of prescribing in general practitioners for adults and general practitioners for children and adolescents in Slovakia. **RESULTS:** According to the evaluated data there is high consumption in the group of penicillins and macrolides. The unjustified prescription of macrolides 24.58% due to allergy of patients to penicillins 4.67%. In these respiratory diseases, antibiotics were most frequently indicated: Sinusitis acuta (79.47%), Tonsilopharyngitis acuta (69.78%), Bronchitis acuta and Tracheobronchitis acuta (68.80%) The use of microbiological and biochemical tests were observed in 26.5% of patients. In 73.5% not used any of these tests. **CONCLUSIONS:** Analysis of treatment with antimicrobial drugs for acute respiratory diseases confirmed the current trend of increasing prescription in Slovakia. Excessive consumption of antibiotics often leads to unwanted spread of antimicrobial resistance and the ineffectiveness of existing drugs to fight infections. The solution unfavorable situation is repeated audits of prescribing antimicrobial drugs. Based on the results of our study we suggest prepare educational training for laic and professional public.

PIN110

## REAL-WORLD PRACTICE PATTERNS FOR THE TREATMENT OF COMPLICATED SKIN AND SKIN STRUCTURE INFECTIONS IN EUROPE: A RETROSPECTIVE DATABASE ANALYSIS

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**OBJECTIVES:** Skin and soft tissue infections (SSTI) are among the most common hospital infections, and represent a heterogeneous range of infection types with numerous treatment options. While recent research has begun to characterize treatment patterns and associated outcomes, little is known about country-specific practice patterns. The purpose of this analysis was to characterize current practice patterns in the treatment of SSTIs in select European countries. **METHODS:** A retrospective analysis was conducted using Arlington Medical Resources' (AMR's) Hospital Antibiotic Market audit January-June 2013. The audit is comprised of data elements including patient demographics, diagnosis, therapy sequence, switching, and concomitance, hospital and intensive care unit, length of stay, discharge drug, and drug costs. **RESULTS:** A sample of adult inpatients with SSTIs projected to national volume in Germany (n=427,516), United Kingdom (UK; n=292,265), Italy (n=199,588) and Spain (195,084) were included for analysis. Demographic characteristics were similar across countries; diabetes and heart disease were the most common comorbidities. Practice patterns varied considerably; the most common first-line treatment was ampicillin/sulbactam (22.1%) in Germany, flucloxacillin (31.9%) in UK, ceftriaxone (10.7%) in Italy, and amoxicillin/clavulanate (21.2%) in Spain. MRSA rates across all SSTIs were 3.5%, 4.9%, 3.3%, and 3.4% in Germany, UK,